## What is claimed is:

5

10

- A color filter assembly rotating around a central axis thereof, including:
  - a carrier having a plurality of holes and rotating around the central axis;
  - a color filter fixed to the carrier;
  - a plurality of balancing elements individually and movably located in the holes such that the center of mass of the color filter assembly is on the central axis.
- 2. The color filter assembly as claimed in claim 1, wherein the holes are formed parallel to the color filter and longitudinally toward the central axis.
- The color filter assembly as claimed in claim 1,
   wherein the holes are symmetric to the central axis.
  - 4. The color filter assembly as claimed in claim 1, wherein the holes are threaded for the balancing elements moving therein.
- 5. The color filter assembly as claimed in claim 1, wherein the balancing elements are adhered to the carrier when the center of mass of the filter assembly is on the central axis.
  - 6. A color wheel, including:
  - a filter assembly of claim 1;
- 25 a motor;

Client's ref.:
Our ref:0757-A20071US/ final/ tklin / Kevin

15

- a shaft at the central axis connecting the motor and the filter assembly, wherein the motor rotates the filter assembly via the shaft;
- 7. The color filter assembly as claimed in claim 6, wherein the holes are formed parallel to the color filter and longitudinally toward the central axis.
  - 8. The color filter assembly as claimed in claim 6, wherein the holes are symmetric to the central axis.
- The color filter assembly as claimed in claim 6,
   wherein the holes are threaded for the balancing elements moving therein.
  - 10. The color filter assembly as claimed in claim 6, wherein the balancing elements are adhered to the carrier when the center of mass of the filter assembly is on the central axis.